

**DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
MATERIALS ENGINEERING AND TESTING SERVICES AND  
GEOTECHNICAL SERVICES  
POSITION DUTY STATEMENT**

<b>CLASSIFICATION TITLE</b>	<b>DISTRICT/DIVISION/OFFICE</b>	
Transportation Engineering Technician	DES METS-GS Office of Geotechnical Support Foundation Testing Branch	
<b>WORKING TITLE</b>	<b>POSITION NUMBER</b>	<b>EFFECTIVE DATE</b>
TET	559-316-3175-xxx	December 2011

**As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.**

***GENERAL STATEMENT***

Under the supervision of a Senior Transportation Engineer (Supervisory), or guidance from a Materials and Research Engineering Associate or Transportation Engineer Civil functioning in a lead capacity, the Transportation Engineering Technician (TET) will conduct foundation testing for transportation projects. The primary responsibilities of this position are to quickly, safely, and accurately perform foundation testing, implement solutions for technical testing problems, coordinate testing with Structure Construction field personnel, and work either as part of a team or independently as necessary.

***TYPICAL DUTIES***

Percentage	Job Description
45% (E)	Perform testing on structural foundations and soils to determine pile integrity, capacity, and other parameters of engineering interest. This work will include conducting tests in accordance with instructions to measure foundation engineering properties including pile load tests, gamma-gamma logging, crosshole sonic logging, sonic caliper logging, downhole camera, and pile dynamic analysis. This work will occur at construction sites throughout the State of California.
30% (E)	Transport testing equipment and supplies to/from project sites within the State, prepare site for testing, erect or install test equipment, take accurate field notes, and prepare engineering charts and graphs for test data. Responsible for communicating with the Construction Resident Engineer and Construction Contractor as necessary to carry out these duties.

- 15% (E) Maintain equipment and facilities used for foundation testing. Conduct research activities for material acquisition, safety meetings, or other duties as required.
- 10% (E) Apply knowledge of computers to acquire test data from field instruments and transmit data to the home office. Perform analysis of collected data. In this capacity, will use computers and commercially available data acquisition and communication software to collect test data and transmit test data from the field to home office.

### ***SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS***

This is not a supervisory position.

### ***KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS***

- Ability and willingness to travel to and work at active construction sites throughout California. The travel requirement is extensive, often overnight and for many consecutive days, depending upon Department needs. Testing will be conducted away from the home office and in construction work zones.
- Possession of a valid California Class A Commercial Drivers License and experience and endorsement for manual transmission and tractor-trailer combinations is desirable.
- Position requires testing for controlled substances and current medical certification.
- Ability and willingness to work extensively with sealed radioactive sources. Must pass nuclear operator certification test.
- Certification and ability to operate a forklift is desirable.
- Ability to work from heights possibly requiring the use of fall protection.
- Ability to independently apply sound judgment in test situations and to analyze factors capable of affecting test results is required.
- Knowledge of the use of computers.
- Knowledge of, or the ability to learn, aspects of structure foundations, foundation test equipment, field testing procedures, and data acquisition devices.
- Ability to comprehend and analyze specification requirements and test methods as they relate to foundation testing, including recognizing deficiencies as they arise, and assisting in developing workable, effective specifications and test methods. Must be capable of analyzing tests accurately, understand the significance and application of said

results, and recognize potential field problems and reliably assess their probable effects on the test program.

- Ability to effectively communicate both verbally and in writing. Must have the ability to take notes and fill out field documentation.
- Ability to deal tactfully with individuals and groups from the Department, contractors, governmental agencies, and private consulting firms.
- The ability to interact effectively with individuals and groups from the Department, governmental agencies, and private consulting firms.
- Ability to clearly and audibly communicate at construction sites and the ability to perform crane signals.
- Employee must have the ability to establish and maintain good and professional working relationships with other Department units, industry and the contractor on Department projects. Employee must be familiar and able to follow the Department policies and procedures.

### ***RESPONSIBILITY FOR DECISIONS AND CONSEQUENCE OF ERROR***

This position requires effective and timely response in all aspects of testing. Errors in judgment and/or decisions or excessive delays in rendering decisions could affect public and employee safety, cause project delays with associated costs, or result in tort liability for the Department. Errors may also represent a significant safety hazard to the employee, coworkers, or the public.

### ***PUBLIC AND INTERNAL CONTACTS***

The employee will routinely contact other Caltrans personnel, contractors and industry representatives concerning foundation testing. This contact will be verbal or written, as needed to perform assignments. Incumbent will be required to make periodic safety meetings in the field or at designated safety meetings. Must be able to clearly communicate and direct operations in oral and written forms and utilizing signaling under active field construction sites.

As a representative of the Department and the State of California, the incumbent is expected to maintain fair, impartial and effective relationship with clients, and conduct himself or herself in a professional and courteous manner at all times.

### ***PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS***

Employees will be required to travel to and work in active field construction sites, walk across uneven terrain, climb into and out of excavations, and direct field operations. They may be required to move test equipment and test materials that may require lifting up to 60 lbs.

Employees may be required to sit for long periods of time using a keyboard and video display terminal.

Employee will be required to develop and maintain cooperative working relationship and respond appropriately to difficult situations. The incumbent behaves in a fair and ethical manner toward others and demonstrates a sense of responsibility and commitment to public service. The incumbent values cultural diversity and other individual differences in the workforce. The incumbent considers and responds appropriately to the needs, feelings, and capabilities of different people in different situations.

***WORK ENVIRONMENT***

Employees will be required to travel extensively. Employees will work outdoors and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold. While at their base of operation, employees will work in a climate-controlled office under artificial lighting.

I have read, understand, and can perform the duties listed above. If you believe you may require accommodation, please discuss this with the hiring supervisor.

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Employee Name (please print)

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Employee Signature

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Date

I have discussed the duties with and provided a copy of this duty statement to the employee named above.

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Supervisor Name (please print)

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Supervisor signature

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Date